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## GeneTailor™ Site-Directed Mutagenesis System

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Description	Catalog No.	Size
The GeneTailor™ Site-Directed Mutagenesis System provides a simple, convenient, and highly efficient means to generate mutant target proteins. You can generate:	12397022	96 rxns

- All types of base substitutions, deletions, or insertions of up to 21 nucleotides
- Up to 96 different site-directed mutants from the same methylated plasmid
- Site-directed mutations with >80% mutagenesis efficiency

DNA isolated from any source can be used, with no need for specialized vectors, host strains, or restriction sites. A streamlined protocol provides >80% mutagenesis efficiency, saves time, and easily adapts to high, medium, and low throughput applications.

### How the GeneTailor™ System Works

Mutagenesis with the GeneTailor™ System is a simple three-step process (Figure 1) requiring only three hours plus an overnight incubation following transformation. First, methylate target DNA (up to 8 kb, isolated from any bacterial source) with DNA methylase. Then perform the mutagenesis reaction, with two overlapping primers, only one of which must contain the desired mutation(s). Next, transform the mutated DNA. The methylated parental DNA is digested by the host endonuclease, leaving the unmethylated mutagenesis reaction product intact. No purification step or additional digestions are needed. Select for individual colonies the following day to verify the mutations.

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## GeneTailor™ Site-Directed Mutagenesis System

### High-efficiency, high-throughput site-directed mutagenesis

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### Contents and Storage:

Each GeneTailor™ Site-Directed Mutagenesis System kits includes DNA methylase, methylation buffer, 200X S-adenosylmethionine (SAM), dNTP mix (10 mM), control plasmid, control primers, sterile, distilled water, and MAX Efficiency® DH5α™ -T1<sup>R</sup> chemical competent cells. (16 rxn kit includes One-Shot® competent cells). Store competent cells at -80°C. Store all other components at -20°C. Guaranteed stable for 6 months when properly stored.

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### Footnotes:

\*Mutagenesis enzyme is not included with GeneTailor™ System and must be purchased separately. Recommended enzymes are Platinum® Pfx DNA Polymerase (for use with plasmids up to 5 kb) or Platinum® Taq DNA Polymerase High Fidelity (for use with plasmids up to 8 kb, difficult to amplify targets and HTP applications).

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